

**CLAIMS****CLAIM 1**

- 5           An apparatus for controlling traffic over a network, comprising:  
          a switching processor, including a plurality of ports connectable to a network line  
and packet counter registers for storing counting information on packets ingressed and  
egressed through said plurality of ports and for controlling ingress and egress packet traffic  
volume for each of said plurality of ports in response to an input traffic control command;  
10       and  
          a controller for registering, as a user value, traffic volume for each of said plurality  
of ports in an internal register, said traffic volume being inputted through a data input unit,  
and for comparing a user value for each of said plurality of ports with a value in a  
respective one of said packet counter registers for said each port so as to output said input  
15       traffic control command for said each port to said switching processor.

**CLAIM 2**

- 20           An apparatus for controlling traffic over a network, comprising:  
          a switching processor, including a plurality of ports connectable to a network line  
and a packet counter register for storing counting information on packets ingressed and/or  
egressed through said plurality of ports and for controlling ingress and/or egress packet  
traffic volume for said plurality of ports in response to an input traffic control command;  
and  
25       a controller for registering, as a user value, traffic volume for said plurality of  
ports in an internal register, said traffic volume being inputted through a data input unit,  
and for comparing a user value for said plurality of ports with a value in a respective one of  
said packet counter registers for said plurality of ports so as to output said input traffic  
control command for said plurality of ports to said switching processor.

**CLAIM 3**

- 30           The apparatus of claim 2, wherein said ingress and/or egress traffic volume is controlled  
via a token bucket, which is shared between the ports of said plurality of ports.

**CLAIM 4**

- 40           The apparatus of one of the claims 1 to 3, wherein said input traffic control  
command is a control command that enables said packets ingressed or egressed through  
said each port to be queued, dropped, or paused.

**CLAIM 5**

- 45           A method for controlling a traffic volume ingressed or egressed via a port or a plurality of  
ports of a switching processor, comprising the steps of  
entering a user value for a maximum traffic volume,  
comparing said user value with a respective value for said traffic volume, said respective

value being written in a packet counter register, and  
issuing a traffic control command to said switching processor.

**CLAIM 6**

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The method of claim 5, wherein said traffic volume relates to a plurality of ports and said traffic volume is controlled via a token bucket, which is shared between the ports of said plurality of ports.

10 **CLAIM 7**

The method of claim 5 or 6, wherein a packet is dropped by setting the frame size parameter smaller than the minimum Ethernet frame size.

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